

## WHAT IS CLAIMED:

*Sub C1*

1. A composition comprising a material that interacts with a sulfur dye such that oxidation of the sulfur dye by oxidizing agents is inhibited and/or reduced.
2. The composition according to Claim 1 wherein the material comprises one or more metal ions.
3. The composition according to Claim 2 wherein the one or more metal ions comprise an electron configuration such that the one or more metal ions are at their most stable oxidation state.
4. The composition according to Claim 2 wherein the one or more metal ions comprise a transition metal ion.
5. The composition according to Claim 4 wherein the transition metal ion is selected from the group consisting of: Ni(II), Co(II), Pd(II), Pt(II), Sn(IV), Pb(II), Hg(II) and mixtures thereof. *542 618*
6. The composition according to Claim 2 wherein the one or more metal ions comprise a lanthanide metal ion. *423/263*
7. The composition according to Claim 6 wherein the lanthanide metal ion is selected from the group consisting of: La(III), Ce(IV), Gd(III) and mixtures thereof.
8. The composition according to Claim 1 wherein the composition further comprises one or more adjunct ingredients selected from the group consisting of: surfactants, builders, chelants, enzymes, suds suppressers, brighteners, finishing agents, textile milling agents, soil release agents, anti-redeposition agents, bleaching agents, perfumes, odor control agents, wrinkle reducing agents, dye fixing agents, dye transfer inhibiting agents, fabric softening agents and mixtures thereof.
9. A kit comprising:
  - a. an article of manufacture comprising a composition according to Claim 1; and
  - b. instructions for using the composition to treat a fabric in need of treatment.

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10. A method for treating a sulfur dye-containing fabric in need of treatment comprising contacting the sulfur dye-containing fabric with a composition according to Claim 1 such that the sulfur dye-containing fabric is treated.

11. The method according to Claim 13 wherein the sulfur dye-containing fabric in need of treatment is contacted with the composition prior to washing the sulfur dye-containing fabric.

12. The method according to Claim 13 wherein the sulfur dye-containing fabric in need of treatment is contacted with the composition during the washing cycle of a conventional wash comprising the sulfur dye-containing fabric.

13. The method according to Claim 13 wherein the sulfur dye-containing fabric in need of treatment is contacted with the composition during the rinsing cycle of a conventional wash comprising the sulfur dye-containing fabric.

14. The method according to Claim 13 wherein the sulfur dye-containing fabric in need of treatment is contacted with the composition after washing the sulfur dye-containing fabric.

15. The method according to Claim 13 wherein the sulfur dye-containing fabric in need of treatment is contacted with the composition during dyeing, after treatment and/or during finishing of the sulfur dye-containing fabric.

16. A method for dyeing a fabric in need of treatment comprising contacting the fabric with a dyeing composition comprising a sulfur dye protection system and a sulfur dye.

17. A method for finishing a fabric in need of treatment comprising contacting the fabric with a finishing composition comprising a sulfur dye protection system and a finishing agent.

18. A process for making bleach stable sulfur dyes comprises the step of: modifying a sulfur dye in need of modification such that the modified sulfur dye exhibits increased bleach stability as compared to the unmodified sulfur dye.

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19. The process according to Claim 21 wherein the step of modifying the sulfur dye in need of modification comprises reacting the sulfur dye with a source of one or more metal ions.
20. The process according to Claim 22 wherein the one or more metal ions comprise an electron configuration such that the one or more metal ions are at their most stable oxidation state.
21. The process according to Claim 22 wherein the one or more metal ions comprise a transition metal ion.
22. The process according to Claim 24 wherein the transition metal ion is selected from the group consisting of: Ni(II), Co(II), Pd(II), Pt(II), Sn(IV), Pb(II), Hg(II) and mixtures thereof.
23. The process according to Claim 22 wherein the one or metal ions comprise a lanthanide metal ion.
24. The process according to Claim 26 wherein the lanthanide metal ion is selected from the group consisting of: La(III), Ce(IV), Gd(III) and mixtures thereof.
25. A process for dyeing a textile comprising contacting the textile with a bleach stable sulfur dye made by the process according to Claim 21.
26. A dyed textile made by the process according to Claim 28.
- ct.* A process for making bleach stable sulfur dyes comprises the steps of:
  - a. making a sulfur dye by reacting one or more organic compounds with a sulfur-containing compound to form the sulfur dye; and
  - b. reacting the sulfur dye with a stabilizing agent such that the sulfur dye exhibits increased bleach stability as compared to the sulfur dye in the absence of such a stabilizing agent.
28. The process according to Claim 30 wherein the one or more organic compounds comprises one or more organic aromatic compounds.

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29. The process according to Claim 31 wherein one or more organic aromatic compounds is selected from the group consisting of aromatic amines, phenols, or nitro compounds and mixtures thereof.

30. The process according to Claim 31 wherein the one or more organic aromatic compound produce a color selected from the group consisting of: black, brown, yellow, orange, red, blue, green and shades thereof and mixtures thereof.

31. The process according to Claim 30 wherein the step of making the sulfur dye comprises melting or boiling the one or more organic compounds with the sulfur-containing compound.

32. The process according to Claim 30 wherein the sulfur-containing compound comprises a bond selected from the group consisting of sulfide bonds, disulfide bonds, multi-sulfide bonds and mixtures thereof.

33. The process according to Claim 35 wherein the sulfur-containing compound comprises a disulfide bond.

34. The process according to Claim 30 wherein the stabilizing agent comprises a source of one or more metal ions.

35. The process according to Claim 37 wherein the one or more metal ions comprise an electron configuration such that the one or more metal ions are at their most stable oxidation state.

36. The process according to Claim 37 wherein the one or more metal ions comprise a transition metal ion.

37. The process according to Claim 39 wherein the transition metal ion is selected from the group consisting of: Ni(II), Co(II), Pd(II), Pt(II), Sn(IV), Pb(II), Hg(II) and mixtures thereof.

38. The process according to Claim 37 wherein the one or metal ions comprise a lanthanide metal ion.

39. The process according to Claim 41 wherein the lanthanide metal ion is selected from the group consisting of: La(III), Ce(IV), Gd(III) and mixtures thereof.

*✓ Sulfur cont'd*  
40. A process for dyeing a textile comprising contacting the textile with a bleach stable sulfur dye made by the process according to Claim 30.

41. A dyed textile made by the process according to Claim 43.

42. A method for reducing aging of textiles comprising the step of contacting the textiles with a composition according to Claim 1.

43. A method for improving color fastness of sulfur dyes on textiles comprising the step of contacting the textiles with a composition according to Claim 1.

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